

IN THE CLAIMS:

Please CANCEL claims 27-50 without prejudice to or disclaimer of the recited subject matter.

Please ADD new claims 51-61, as follows.

1-50. (Canceled)

51. (New) An exposure apparatus for exposing a wafer to light, said apparatus comprising:

a movable stage configured to hold the wafer;

a scope having an image sensor and configured to obtain image data by accumulating image signals corresponding to an image of a mark formed on said image sensor during an accumulation period of said image sensor, with the mark being held by said stage;

a stage position measurement system configured to measure a position of said stage a plurality of times during the accumulation period of said image sensor; and

a controller configured to calculate an average position of the plurality of positions of said stage measured during the accumulation period, to calculate a position of the mark based on the image data obtained by said scope and data of the average position, and to control a position of said stage based on the calculated position of the mark.

52. (New) An apparatus according to claim 51, wherein said image sensor is a CCD camera.

53. (New) An apparatus according to claim 51, wherein said scope and said stage position measurement system are configured so that obtaining the image data by said scope and measuring the plurality of positions of said stage by said stage position measurement system are performed in sync with each other based on a sync signal.

54. (New) An apparatus according to claim 51, wherein said scope is configured to send a sync signal to said stage position measurement system in accordance with the accumulation period of said image sensor.

55. (New) An apparatus according to claim 51, wherein said stage position measurement system is configured to measure a position of said stage and to send a sync signal to said scope based on the measured position of said stage.

56. (New) An apparatus according to claim 51, wherein said scope is an off-axis scope.

57. (New) An apparatus according to claim 51, wherein said stage position measurement system includes a laser interferometer.

58. (New) An apparatus according to claim 51, wherein said scope is configured to obtain, as the image data, image data of a mark formed on the wafer.

59. (New) An apparatus according to claim 51, wherein said controller is configured to cause said stage to move at a constant speed during the accumulation period of said image sensor.

60. (New) An apparatus according to claim 51, wherein said controller is configured to determine a mode to be applied to the calculation of the position of the mark.

61. (New) A method of manufacturing a device, said method comprising steps of:
exposing a wafer to light using an exposure apparatus as defined in claim 51;
developing the exposed substrate; and
processing the developed substrate to manufacture the device.